Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





WATER SUPPLY OUTLOOK FOR IDAHO

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE, and

IDAHO STATE RECLAMATION ENGINEER

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE

ADDRESS

Alaska

P. O. Box "F", Palmer, Alaska 99645

Arizona

6029 Federal Building, Phoenix, Arizona 85205

Colorado (N. Mex.)

12417 Federal Building, Denver, Colorado 80202

Idaho

P. O. Box 38, Boise, Idaho 83707

Montana

P. O. Box 98, Bozeman, Montana 59715

Nevada

P. O. Box 4850, Reno Nevada 89505

Oregon

1218 S. W. Washington St., Portland, Oregon 97205

Utah

4012 Federal Building, Salt Lake City, Utah 84111

Washington

360 Federal Office Building, Spokane, Washington 99201

MENT of

Wyoming

P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK FOR IDAHO

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

D.A. WILLIAMS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

LEE T. MORGAN

STATE CONSERVATIONIST SOIL CONSERVATION SERVICE BOISE, IDAHO

In Cooperation with

R. KEITH HIGGINSON

STATE RECLAMATION ENGINEER DEPARTMENT OF RECLAMATION BOISE, IDAHO

Report prepared by

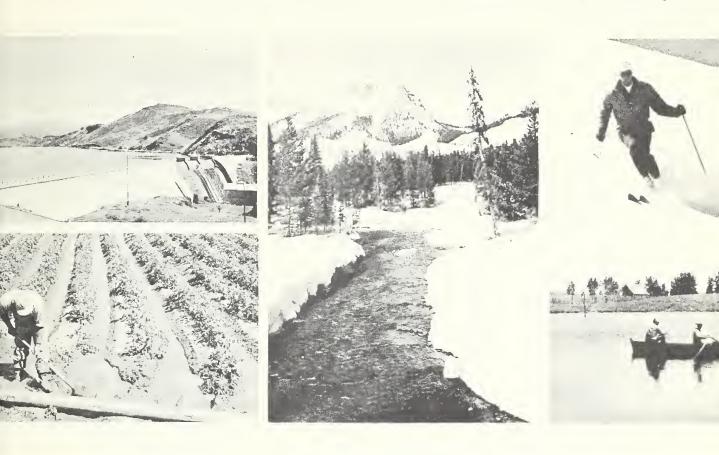
MORLAN W. NELSON, Snow Survey Supervisor and

J. ALDEN WILSON, Assistant Snow Survey Supervisor

SOIL CONSERVATION SERVICE SNOW SURVEY SECTION P.O. BOX 38, BOISE, IDAHO 83707



WATER SUPPLY OUTLOOK for IDAHO



JUNE 1, 1968

SNOW SURVEYS, SUPPLEMENTAL MEASUREMENTS AND CORRECTIONS

Snow surveys made on key courses throughout the state near the first of June indicate that the high elevation snow melt has been delayed. In general, water content of the snow pack is below normal following the trend established since last fall. Precipitation during May was also light and forecasts in general are expected to be slightly high. Soil moisture conditions on the watersheds continued to dry out except at the very high elevations where there is still snow cover. The critically water short areas delineated in May, such as the small streams running into the Snake River are even more apparent at this time.

The conservation of water in general is of prime importance for the 1968 and possibly the 1969 season.

This report carries corrected measurements made earlier in the season. In some cases, resurveys were made, and others, errors were found in the data.



SNOW		1	CUF	RRENT INFOR	MATION	PAST F	RECORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CON	TENT (Inches)
NA ME	NO.	ELEVATION	SURVEY	(Inches)	(inches)	LAST YEAR	AVERAGE 6
	TII	JE 1 1	968 MFA	SUREMEN	ጥር		
·	901			DORLATER	10		
Atlanta Summit	15F4	7500	6/4	18	9.1	-	-
Big Creek Summit	15E2	6600	6/3	16	7.7	28.4	-
Bogus Basin	16 F2	6120	5/28	0	0.0	5.8	-
Brundage Mountain	16 D6	7560	5/28	61	-32.0	-	-
Elk Butte	16C15	5550	6/1	0	0.0	25.4	-
Galena Summit	14F12	8795	5/31	18	8.2	15.1	do
Gibbons Pass Mont.	13D2	7100	5/31	14	6.4	15.4	-
Goat Lake	14C9	6600	6/1	75	42.8	49.4	-
Granite Peak	15B13	6000	6/1	52	26.7	46.4	-
Hemlock Butte	16C6	5500	6/1	32	19.1	33.0	-
Hoodoo Basin Mont.	15C8	6000	5/28	69	35.4	46.3	-
Hoodoo Creek Mont.	15C1	5900	5/28	64	31.2	47.6	-
Lookout	15B2	5250	5/29	22	11.0	22.8	-
Lost Lake	15B14	6000	6/1	55	32.6	63.8	-
Medicine Ridge	15B4	6150	6/1	60	32.3	45.8	-
Moores Creek Summit	15F1	6100	5/31	0	0.0	9.0	-
Orogrande Mountain	15D4	7800	6/1	88	44.5	43.5	-
Schweitzer Bowl	16A6	4500	5/31	0	0.0	5.7	-
Schweitzer Ridge	16A5	6100	5/31	52	24.8	48.5	-
Shafer Butte	16 F7	7480	5/28	0	0.0	-	-
Trinity Mountain	15F5	7780	5/31	24	12.0	-	-
SUE	PLEMENT	CAL MEA	SUREMEN	NTS - MA	Y 15, 1	968	
Anderson Butte (A)	15D7	6800	5/16	69	28.2	36.4	_
Anderson Ridge (A)	15D7 15D8	5400	5/16	0	0.0	JO • 4	
Bogus Basin	16F2	6120	5/16	6	2.5	22.7	_
Buck Meadows (A)	15D5	5600	5/16	14	6.4	25.8	_
Copper Butte (A)	15D3	6000	5/16	60	26.9	27.5	_
Disgrace Butte (A)	15D10	6600	5/16		17.6	26.9	_
Elk Mountain (A)	15D11	6900	5/16	60	24.6	37.6	_
Falls Point (A)	15C11	4600	5/16	0	0.0	5.4	
Galena	14F1	7300	5/15	0	0.0	17.0	_
Galena Summit	14F12	8795	5/15	44	17.0	29.6	
Horse Creek #1 (A)	15C14	5500	5/16	T	T	15.8	_
		5400	5/16		12.6	27.2	
Horse Creek #4 (A)	15C15	5700	5/16	12	5.5	18.9	_
Horse Point (A)	15D21 15D22	6100	5/16	0	0.0	17.2	_
Indian Hill (A) Lookout	15B22 15B2	5250	5/16	49	22.7	41.1	_
	15D17	7000	5/16	61	25.0	31.5	im.
Meadow Cr. Lookout (A)		6100	5/17	19	8.3	29.2	_
Moores Creek Summit	15F1	6300	5/1/		9.0	23.6	-
Mountain Meadows (A)	15D6 15D20	6000	5/16		5.4	19.6	_
Sable Hill (A) Trinity Mountain	15D20 15F5	7780	5/17	46	22.4	19.0	-
Trinity Mountain	CICI	//00	J/ 1/	40	~ ~ · · · · ·		-



SNOW			CUR	RENT INFOR	MATION	PAST R	ECORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	AVERAGE D

SUPPLEMENTAL MEASUREMENTS

DECEMBER 1, 1967							
Bad Bear Bogus Basin Bogus Basin Road Boulder Creek China Hat Crumarine Creek East Twin Emigrant Summit Giveout Howard Creek Moores Creek Summit Moscow Mountain Somsen Ranch West Twin Willow Flat	15F2 16F2 16F4 16D1 11G2 16C6 16C3 11G6 11G16 16C5 15F1 16C2 11G1 16C4 11G4	5500 6120 5360 5500 6300 3500 4000 7350 6840 3500 6100 4800 7000 4200 6100	12/1 12/1 12/1 11/30 12/1 12/2 12/2 11/29 11/29 12/2 12/2 12	10 9 5 15 4 5 5 7 4 16 8 9 6	1.5 1.9 0.6 2.0 0.6 1.0 1.0 1.0 2.9 1.5 1.2 1.0	1.9 0.0 0.0 0.0 4.4 0.0	
DECEMBER 15, 1967							
Bad Bear Bogus Basin Bogus Basin Road Moores Creek Summit	15F2 16F2 16F4 15F1	5500 6120 5360 6100	12/19 12/18 12/18 12/19	15 26 12 27	2.7 4.0 2.0 5.0	5.6 10.2	
JANUARY 1, 1968							
Anderson Butte (A) Anderson Ridge (A) Buck Meadows (A) Copper Butte (A) Disgrace Butte (A) Dry Basin (A) Elk Mountain (A) Falls Point (A) Horse Creek #1 (A) Horse Creek #4 (A) Horse Point (A)	15D7 15D8 15D5 15D10 15D11 11G14 15D13 15C11 15C14 15C15 15D21	6800 5400 5600 6000 6600 7900 6900 4600 5500 5400	1/8 1/8 1/8 1/8 1/8 1/7 1/8 1/8 1/8 1/8 1/8	63 13 51 61 51 48 80 36 49 45 43	15.1 3.6 11.6 15.9 12.2 12.6 19.2 10.8 13.2 12.6 11.6	 14.6 	
Horseshoe Basin (A) Indian Hill (A) Liberty Spring (A) Meadow Cr. Lookout (A) Mountain Meadows (A) Sable Hill (A) Squaw Flat (A)	11G15 15D22 11G13 15D17 15D6 15D20 16E5	8000 6100 8600 7000 6300 6000 6230	1/7 1/8 1/7 1/8 1/8 1/8 1/8	46 36 46 61 55 36 55	12.1 9.4 12.1 14.0 13.7 9.4 14.4	10.9	

⁽b) 1948-62, 15 year period. *Not located directly on this drainage. *Estimated 1948-62, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (B) Radioactive Gage snow-water equivalent.

	Waitz
	0000 0410 -
11 (000)	
	50 10 2 20
	0.111
	7 77 170
	1.3-00-301

DRAINAGE BASIN and SNOW COURSE				RRENT INFOR	PAST RECORD WATER CONTENT (Inches)		
NAME NAME	NO.	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	AVERAGE 6
JANUARY 15, 1968							
Bogus Basin	16 F2	6120	1/15	27	6.6	11.6	
Galena	14F1	7300	1/16	42	9.2	10.1	
Galena Summit	14F12	8795	1/16	47	11.3	12.0	
Moores Creek Summit	15F1 14F9	6100 9000	1/15 1/15	41	9.8	15.7	
Mount Baldy Pierce Rgr. Sta.	14 F 9	3170	1/15	38 22	8.6 5.2	10.2 5.0	
Trinity Mountain	15F5	7400	1/24	53	16.3		
FEBRUARY 1, 1968							
Black Canyon	11E18	7850	2/6	66	20.4	29.0	
Black Moose	11E19	8125	2/6	76	26.2	31.2	
Latham Springs	11E16	7650	2/6	67	20.2	31.8	
Lucky Dog Old Road	11E14 11E15	6900 7 250	2/6 2/6	57 58	16.5 18.2	25.4 24.2	
Poacher's Cabin	11E17	8000	2/6	64	20.8	32.2	
FEBRUARY 15, 1968							
Bogus Basin	16 F2	6120	2/16	32	9.0	18.8	
Ory Basin (A)	11G14	7900	2/10	51	11.5		
Galena	14F1	7300	2/15	44	11.8	17.2	
Galena Summit Horseshoe Basin (A)	14F12 11G15	8795 8000	2/15 2/10	51 48	14.4 10.8	19.6	
Liberty Spring (A)	11G13	8600	2/10	41	9.3		
foores Creek Summit	15F1	6100	2/16	49	13.8	25.2	
	14F9					18.8	view. New
	15C5		2/15		5.7	8.2	
MARCH 1, 1968							
Ory Basin (A)	11G14	7900	2/25		24.9		
Horseshoe Basin (A)	11G15	8000	2/25	68	22.6		
MARCH 15, 1968							
Big Springs	11E9		3/14		17.5		the the
Bogus Basin	16F2	6120			11.9		
Bogus Basin Road	16F4	5360	-		T	7.0	
Fourth of July Summit Galena	16B3 14F1				13.8	7.8 22.0	
Galena Summit	14F12	8795		60	17.7		
Island Park	11E10	6315		42	13.4		
Lookout	15B2	5250	3/14		27.0		
Moores Creek Summit	15F1	6100		59	19.9		
3	14F9						
Pierce Rgr. Sta.	15C5	3170	3/15	7	2.0	11.2	

⁽b) 1948-62, 15 year period. "Not located directly on this drainage. * Estimated 1948-62, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



SNOW	CL	IRRENT INFORM	PAST RECORD				
DRAINAGE BASIN and SNOW COURSE			DATE OF	SNOW DEPTH	WATER CONTENT (Inches)		
NAME	NO.	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	AVERAGE 6
MARCH 15, 1968 (Continu	red)						
in the state of th	2007						
Prairie	15F6	5600	3/15	T	T	4.6	
Sherwin	16C1	3200	3/15	15	5.2	13.4	
Valley View	11E8	6500	3/14	52	17.8	23.9	
APRIL 1, 1968							
Borah (A)	13E8	8250	4/8	16	5.0	6.1	
Doublespring Pass (A)	13E25	8400	4/8	26	8.1	15.0	
Keystone (A)	14 E6	7700	4/8	6	2.0		***
Leatherman Pass (A)	13E24	9800	4/8	72	24.0	30.1	_ ~
Sage Creek (A)	14E5	7800	4/8	16	5.0	11.7	
Swauger Lake (A)	13 E9	9050	4/8	16	5.0		
Twin Peaks (A)	14E3	10300	4/8	71	24.4	30.8	
IWIII I CARS (A)	1423	10300	4/0	/ 1	24.4	50.0	
APRIL 15, 1968							
Anderson Butte (A)	15D7	6800	4/18	91	38.2		
Anderson Ridge (A)	15D8	5400	4/18	21	9.0		
Bad Bear	15 F2	5500	4/16	0	0.0	7.2	
Big Springs	11E9	6500	4/15	40	17.1		ma no
Bogus Basin	16 F2	6120	4/15	36	14.8		
Bogus Basin Road	16 F4	5360	4/15	0	0.0		
Buck Meadows	15D5	5600	4/18	61	26.8	30.0	
Copper Butte (A)	15D10	6000	4/18	91	39.1		
Disgrace Butte (A)	15D11	6600	4/18	67	28.1		
Elk Mountain (A)	15D13	6900	4/18	85	35.7		
Falls Point (A)	15C11	4600	4/18	11	2.7		
Fourth of July Summit				O	0.0		
Galena	14F1		4/16		11.9	24.1	
Galena Summit	14F12			55	19.0		
Horse Creek #1 (A)	15C14		4/18	30	13.2		
	15C15		4/18	53	22.7		~
	15D21	5700	4/18	37	15.9		
Indian Hill (A)	15D22		4/18	21	9.0		
Island Park	11E10		4/15		11.0		
Lookout	15B2	5250	4/15	85	31.0	41.9	
Meadow Cr. Lookout (A)		7000	4/18	86	36.1		
Moores Creek Summit		6100	4/16	50	19.8	33.8	
	14F9	9000	4/15	46	14.9	27.6	
•	15D6	6300	4/18	61	26.2	23.9	
Prairie	15 F6	4900	4/14		0.0		
Sable Hill (A)	15D20		4/18		15.4		
* *	11E32	9100	4/15	79	30.9		
Trinity Mountain	15F5			74	31.0		
Valley View	11E8		4/15	42	17.1		
,							

⁽b) 1948-62, 15 year period. *Not located directly on this drainage. *Estimated 1948-62, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



SNOW			CUF	RENT INFOR	MATION	PAST R	ECORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	AVERAGE 6

CORRECTIONS TO PREVIOUSLY PUBLISHED 1968 DATA

JANUARY 1, 1968							
Borah (A) Sage Creek (A) Wet Creek Summit (A)	13 E8 14 E5 13 E7	8250 7800 7600	1/3 1/3 1/3	12 7 16	2.7 1.6 3.6	 6.6	 4.8*
FEBRUARY 1, 1968							
Antelope Ridge Buck Meadows	16G6 15D5	5900 5600	1/29 1/31	12 45	2.8 15.4	5.9 21.9	
MARCH 1, 1968							
Little Beaver Telfer Ranch	11G20 13F6	6970 6000	2/28 2/26	37 23	11.5 6.5	15.3 10.6	 7.9*
APRIL 1, 1968							
Above Burke Bear Canyon Copper Basin Dollarhide Summit (A) Garfield Rgr. Sta. Irving Creek Kellogg Peak Kilgore North Fork Meadow (A) Porcupine (A) Roland Summit Sunset Upper Snowhaven Webber Creek	15B8 13F3 13F2 14F8 13F4 12E4 16B5 11E12 14F15 14F14 15B5 15B9	4100 7920 7650 8620 6554 7035 5560 6200 8150 8350 5200 5600 5600 6700	4/3 4/4 4/4 3/29 3/27 4/1 4/3 4/5 4/4 4/4 4/3 4/3 3/29 4/1	35 42 24 51 20 16 54 25 27 36 54 66 29 17	15.0 13.7 8.1 16.7 6.8 5.0 23.5 8.9 9.1 11.5 24.8 28.6 10.8 5.0	28.5 27.2 16.8 26.8 11.6 6.6 36.1 11.1 17.8 22.9 47.6 44.0 6.0	22.5 17.6* 9.1 27.4* 10.5* 35.8* 10.0 44.7* 36.3*
MAY 1, 1968 Above Gilmore (A) Atlanta Summit Little Beaver	13E19 15F4 11G20	7500	5/3 5/1 5/3	22 57 13	9.5 24.2 4.9	22.2 40.4 16.4	 35.9*

⁽b) 1948-62, 15 year period. *Not located directly on this drainage. *Estimated 1948-62, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



Agencies and Organizations Cooperating in Idaho Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests, and
Water Resources, British Columbia
Department of Resources and Development,
Water Resources Division

States:

Idaho State Reclamation Engineer
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

- U. S. Army Engineers
- U. S. Department of Agriculture
 Forest Service
 Agricultural Research Service
- U. S. Department of Commerce
 Environmental Sciences Service Administration,
 Weather Bureau
- U. S. Department of the Interior
 Bonneville Power Administration
 Bureau of Reclamation
 Fish and Wildlife Service
 Water Resources Division, Geological Survey
 Indian Service
 National Park Service
 Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company Washington Water Power Company Idaho Power Company Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Boise Project Board of Control
Little Wood River Irrigation District
Jordan Valley Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Twin Lakes Irrigation Company
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control

PRIVATE CORPORATIONS

Amalgamated Sugar Company

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P.O. BOX 38

BOISE, IDAHO 83707

OFFICIAL BUSINESS

14407

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE

FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"The Conservation of Water begins with the Snow Survey"

USDA NATIONAL AGRICULTURAL LIBRARY CURRENT SERIAL RECORD WASHINGTON, D.C. 20250







